

REMARKS/ARGUMENTS

Claims Status

Claims 1-8, 10 and 12-19 are pending. Claim 19 is added. New claim 19 finds support in the specification: page 11, line 39, to page 12, line 3. No new matter has been entered.

§103(a) Rejection

Claims 1-8, 10 and 12-18 have been rejected under 35 U.S.C. §103(a) as obvious in view of the combination of *Waeber* (US 2005/0066448) and *Kim* ("Preparation of Ethylene-Modified Latex Using Ethylene-Acrylic Acid Resin", Macromol. Symp. 151, 509-514, 2000). Applicants respectfully traverse this rejection.

A. Lack of Motivation to Combine *Waeber* and *Kim*

In response to Applicants' remarks filed January 29, 2009, the Office asserts the following:

"one would have been motivated to combine the teachings of *Waeber* and *Kim* because it is stated in *Kim* that the water permeability of the polymer films decreased as the concentration of ethylene-acrylic acid increased when used with methacrylates (p. 513, Conclusion), which are used in *Waeber* as the polymeric material" and "the addition of the EAA would save time in preparing the coating composition of *Waeber* by eliminating mechanical stirring or mixing to emulsify the composition" (Office Action, paragraph bridging pages 4-5).

Applicants submit that the Office's reasoning (as quoted above) behind the assertion of motivation to combine *Waeber* and *Kim* has been done in hindsight and in light of Applicants' own specification – this is not proper (MPEP 2145, Part XA). Accordingly, Applicants submit that while it is *possible* to combine *Waeber* and *Kim*, there is no motivation to do so for the following reasons. The object of the claimed invention is to provide a process for finishing textile materials which are both water/soil repellant and have

improved mechanical strength. Applicants' specification describes how textiles finished according to *Waeber's* process have inferior mechanical strength (page 2, lines 1-11). Therefore, *Waeber* attains water/soil repellency at the expense of mechanical strength, which is the second desired property of the claimed invention.

Additionally, neither *Waeber* nor *Kim* discusses/suggests that the inclusion of an emulsifier (i.e., EAA) would improve mechanical strength. Accordingly, neither *Waeber* nor *Kim* recognizes the problems sought to be addressed by the claimed invention where a textile is produced having water/soil repellency, but also has improved mechanical strength. The Supreme Court has held that the discovery of a problem or a cause of a problem can lend patentability to an invention. The discovery of a problem is often the key to making a patentable invention. Thus, the patentability of an invention under 35 U.S.C. §103 must be evaluated against the background of the highly developed and specific art to which it relates, and this background includes an understanding of those unsolved problems persisting in the art solved by the invention. *See, Eibel Process Co. v. Minnesota & Ontario Paper Co.*, 261 U.S. 45, 43 S.Ct. 322, 67 L.Ed. 523 (1923). Accordingly, one would not be motivated to include the emulsifier of *Kim* in the aqueous liquor of *Waeber* in order to improve mechanical strength while maintaining sufficient water/soil repellency.

B. Lack of Motivation to Modify the Solids Content of the Liquor

In the response filed January 29, 2009, Applicants traversed the alleged obviousness of the modification of the claimed solids content (see remarks, section (b)). In the Office Action dated April 20, 2009, the Office has failed to answer this traversal. Accordingly, the Office has failed to meet the requirement under MPEP 707.07(f) which states that the Examiner *must* answer all material traversed by Applicants. Thus, Applicants request consideration of the following traversal (as was presented in the response filed January 29,

2009) that there is no motivation to modify a solids content of *Waeber* of ≤ 5.0 g/l to ≥ 5.5 g/l or ≥ 7.0 g/l (see claims 1 and 5 respectively) as claimed. In addition, Applicants request the Office's answer to this traversal.

“[E]ven if one were to introduce an emulsifier (e.g., EEA) into the liquor of *Waeber*, *Waeber* only discloses liquors containing solids up to 5 g/l (Aerosil R812S of Examples 2, 4, 7 and 8; see also Applicants' specification: page 2, lines 1-7). In contrast, Applicants' claim a solids content of the liquor being at least 5.5 g/l (claim 1) or at least 7 g/l (claim 5). Thus, the “preferred” working range as disclosed by *Waeber* would be 5.0 g/l or less, not 5.5 g/l or more or 7 g/l or more as claimed by Applicants. With this in mind, one skilled in the art would have no motivation to look above the “preferred” thresholds of 5 g/l. Furthermore, courts have held that where, as here, the prior art disclosure suggests the outer limits of the range of suitable values, and that the optimum resides within that range, and where there are indications elsewhere that in fact the optimum should be sought within that range (all examples), the determination of optimum values outside that range may not be obvious (*In re Sebek*, 465 F.2d 902, 175 USPQ 93, 95 (CCPA 1972)). Thus, without any motivation to consider a solids content above 5.0 g/l, Applicants' claims are not rendered obvious.”

C. Combination of *Waeber* and *Kim* Does Not Render Obvious Improved Mechanical Strength of Claimed Invention

In response to Applicants' remarks filed January 29, 2009, regarding improved mechanical strength of textiles obtained from the claimed process, the Office has dismissed such arguments because “the features upon which applicant relies (i.e., that the mechanical

strength of the textiles obtained are improved) are not recited in the rejected claim(s)” (Office Action, page 5, item 10).

Applicants point out that the Office’s insinuation that an improved/unexpected property of the claimed invention must be included in the body of the claims to be examined/considered relevant to patentability has no legal basis. Quite the opposite, the MPEP explains how *evidence*, not claim limitations, of unexpected or superior properties can rebut a *prima facie* case of obviousness (see MPEP 716.02(a)).

Furthermore, to be given substantial weight in the determination of obviousness or non-obviousness, evidence of secondary considerations must be relevant to the subject matter as claimed, and therefore the examiner must determine whether there is a nexus between the merits of the claimed invention and the evidence of secondary considerations (*Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 305 n.42, 227 USPQ 657, 673-674 n. 42 (Fed. Cir. 1985), *cert. denied*, 475 U.S. 1017 (1986)). The term "nexus" designates a factually and legally sufficient connection between the objective evidence of non-obviousness and the claimed invention so that the evidence is of probative value in the determination of non-obviousness (*Demaco Corp. v. F. Von Langsdorff Licensing Ltd.*, 851 F.2d 1387, 7 USPQ2d 1222 (Fed. Cir.), *cert. denied*, 488 U.S. 956 (1988) (see MPEP §716.01(b))). Applicants submit the indication of improved mechanical strength (specification: paragraph bridging pages 11 and 12) is relevant to the subject matter as claimed and does not require that additional limitations be read into the claims. As such, the specification illustrates the superior effects provided by the presently claimed invention and would rebut even a *prima facie* case of obviousness.

Notwithstanding the above and despite the lack of a requirement that such properties be included in the claims, Applicants have provided new claim 19 to prompt the Office to examine/consider the evidence previously presented and to answer said evidence in

accordance with MPEP 707.07(f). Claim 19 includes a limitation related to mechanical strength (i.e., wherein an isotropic distribution of the at least one organic or inorganic solid is maintained in a finishing coat obtained by the treating of the textile material with the at least one aqueous liquor).

In view of the foregoing, Applicants request that the Office consider the following traversal with respect to such a property.

The combination of *Waeber* and *Kim*, if one were inclined to combine them, which they would not be, does not disclose or suggest the improved mechanical strength of textiles obtained by Applicants' claims. Page 2, lines 3-6 and 9-10 of the specification describes: "The finishing process described in WO 01/75216 [*Waeber*] provides finishing layers in which the colloids are anisotropically dispersed in the dispersion medium in that the colloids are observed to become concentrated at the boundary layer between the finishing layer and the surrounding surface." and "textiles finished by the process described in WO 01/75216 [*Waeber*] lack satisfactory mechanical strength in many cases." (emphasis added)

In contrast, the paragraph bridging pages 11 and 12 of the specification explains the following: "Textile materials according to the present invention further exhibit very good mechanical strength. In the textile materials coated according to the present invention, the solid or solids used are isotropically or substantially isotropically distributed throughout the finishing coat, i.e., no concentration is observed in the boundary layer between the finishing coat and the surrounding atmosphere." Thus, it is the Applicants position that the combination of *Waeber* and *Kim* does not disclose or suggest the improved mechanical strength of textiles obtained by Applicants' claims, especially in view of the alteration of the solids content of the liquor which neither reference alone or in combination discloses or suggests.

D. Combination of *Waeber* and *Kim* Does Not Render Obvious Claimed Invention


Accordingly, without (A) motivation to combine *Waeber* and *Kim*, without (B) motivation to modify the solids content of the liquor, and without (C) a disclosure or suggestion by the references, alone or in combination, of improved mechanical strength as obtained by the claimed invention, these references do not render obvious Applicants' claims.

Conclusion

For the reasons discussed above, Applicants submit that all now-pending claims are in condition for allowance. Applicants respectfully request the withdrawal of the rejections and passage of this case to issue.

Respectfully submitted,

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